

Amendments to the Drawings:

The attached sheet(s) of drawings include changes as listed below. The attached replacement sheet(s) replace the original sheet(s).

The changes are as follows.

Gear blanks 2a, 2b were corrected in FIG. 1 to align with the orientation described in the specification and shown in the other FIGS. 3-5, in order to be consistent with the original disclosure. No new matter has been introduced.

FIGS. 3-5 have been converted from photographs into line drawings by a draftsman, as required by the office action. No new matter has been added.

Attachment: 5 Total Sheets, including 4 Replacement Sheets (FIGS. 1 and 3-5) with 1 existing sheet (FIG. 2)

REMARKS

The office action of July 14, 2005 has been reviewed and its contents carefully noted. Reconsideration of this case, as amended, is requested. Claims 1 through 8 remain in this case, claims 9-10 being cancelled by this response.

Comments

The numbered paragraphs below correspond to the numbered paragraphs in the Office Action.

The claims were amended as follows, to correct typographical errors and other informalities. No new matter was introduced. Specifically:

- a. Claims 4 and 6 were amended to correct typographical errors.
- b. Claims 9-10 have been cancelled to facilitate prosecution, but the Applicant reserves the right to pursue the subject matter of these claims in a divisional application.

Restriction Requirement

1. (1st of two paragraphs labeled "1.", this one starting on page 2 of the Office Action) The Examiner has made a restriction requirement and has identified 2 groups as follows:

Group I - recited in claims 1-8

Group II - recited in claims 9-10.

Group I is hereby elected without traverse. Claims 9-10 have been cancelled.

Objections to the Specification / Claims / Abstract / Drawing

4. The photographic format of FIGS. 3-5 is objected-to, and replacement line art drawings have been required. The applicant has provided replacement drawings which meet these

requirements. No new matter has been added. Reconsideration and withdrawal of this objection is respectfully requested.

1. (2nd of two paragraphs labeled "1.", this one starting on page 4 of the Office Action) The disclosure was objected to for various informalities. These informalities have been corrected as suggested by the above amendments to the Specification. Reconsideration and withdrawal of this objection is respectfully requested.
6. Claim 6 is objected-to because of a typographical informality. Claim 6 has been amended to correct this typographical error. Reconsideration and withdrawal of this objection is respectfully requested.

Rejection(s) under 35 U.S.C. §112

5. Claims 4-5 stand rejected under 35 U.S.C. 112, second paragraph, for insufficient antecedent basis. Claim 4 has been amended to correct the antecedent basis. Claim 5 depends from claim 4, and the Applicant believes the correction to claim 4 also corrects the antecedent basis for claim 5.

Applicant believes that these amendments have fully addressed the Examiner's rejections, and the claims are now in condition for allowance. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection(s) under 35 U.S.C. §103

7. Claims 1-2 and 4-8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nejati (U.S. Patent No. 5,664,457) in view of Arnold (U.S. Patent No. 1,731,036)

Claims 2 and 4-8 are directly or indirectly dependent on independent claim 1. Independent claim 1 defines a method for forming gear pitches on a gear blank. A tap coupled to and acted upon by an actuator is provided. A plurality of blanks are provided, wherein each blank has a surface for threading and each blank is free from actuation, other than forces exerted by the tap. The blank surfaces are placed facing each other for engagement with the tap. The tap is actuated upon the blank surfaces, and threads are formed on the blank surfaces.

As admitted in the office action Nejati does not teach or suggest a plurality of blanks, or a set of blanks facing each other for engagement with the tap. In fact, Nejati's tap 374 comes into contact with the single gear blank 370 through a relative movement between the tap 374 and the jig 377 which Nejati describes as "conventional." (Nejati col. 10, lines 16-37) It can be seen from Nejati's FIG. 46 that this conventional movement is a horizontal movement of the jig 377 and the gear blank 370 as the crank 380 is turned. Using the horizontal movement taught by Nejati, it would be impossible for Nejati to have a plurality of blanks facing each other for engagement with the tap (as claimed by the Applicant as part of independent claim 1), since only one of the facing blanks could be engaged at a time. The use of Nejati's conventional movement teaches away from machining more than one blank at a time using a tap.

Arnold does not supplement the shortcomings of Nejati. Arnold discloses a device which uses a milling cutter to machine a point and then threads onto two screws at a time. Even ignoring the fact that Arnold is a milling operation and not a tapping operation, the chucks C which hold the screw blanks d3 are simultaneously driven by friction wheels C1 and C'1 by means of a friction clutch during the milling operation. Therefore, Arnold does not teach or suggest a plurality of blanks, wherein each blank is free from actuation, other than forces exerted by the tap as claimed by the Applicant as part of independent claim 1.

Even if Nejati and Arnold are combined, the combination does not teach or suggest a plurality of blanks, or a set of blanks facing each other for engagement with the tap. The Applicant respectfully disagrees with the assertion in the Office Action that it would have been obvious to one of ordinary skill in the art to have arranged a plurality of Nejati's blanks facing each other for engagement with the tap in order to increase manufacturing production based on the fact that Arnold uses multiple milling blanks. As pointed out above, Nejati teaches away from the use of multiple blanks. In fact, providing multiple blanks facing each other to Nejati would destroy the functionality of Nejati. The Applicant can find no teaching or suggestion within Nejati or Arnold that such a combination would be desirable or that it would be functional. Therefore, it appears that the teachings of the present application have been improperly used with hindsight reconstruction to attempt to arrive at the presently claimed invention. In any event, neither Nejati nor Arnold, whether taken individually or in combination, teach or suggest the method of forming gear pitches on a gear blank as claimed by the Applicant

as part of independent claim 1, for at least the reasons given above. Therefore, independent claim 1 is believed to be allowable over Nejati and Arnold, whether taken individually or in combination. Similarly, dependent claims 2 and 4-8 are believed to be allowable over Nejati and Arnold, whether taken individually or in combination, based on the allowability of their base claims and for the features and actions set forth therein. Reconsideration and withdrawal of the rejections are respectfully requested.

10. Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Nejati (U.S. Patent No. 5,664,457) in view of Arnold (U.S. Patent No. 1,731,036), and further in view of Miyauch et al. (U.S. Patent No. 5,347,760, hereinafter referred to as "Miyauch").

Claim 3 is directly dependent on independent claim 1, the features of which were discussed above with regard to Nejati and Arnold. The arguments pertaining to Nejati and Arnold are hereby repeated by reference. Miyauch does not supplement the shortcomings of Nejati and Arnold. Miyauch does not teach or suggest a plurality of blanks, or a set of blanks facing each other for engagement with the tap as claimed by the Applicant as part of independent claim 1. Ignoring the fact that Miyauch is a finishing machine for gears which have already been manufactured using a honing process, Miyauch only uses one gear blank W at a time. Furthermore, Miyauch does not teach or suggest a plurality of blanks, wherein each blank is free from actuation, other than forces exerted by the tap as claimed by the Applicant as part of independent claim 1. Miyauch's single blank is actuated by a work index unit 28 projecting laterally from the bed 2 for indexing the gear blank W. (Miyauch col. 4, lines 9-11).

As discussed above, the combination of Nejati and Arnold results in a machine with destroyed functionality, since the horizontal movement of Nejati's jig would preclude the use of a plurality of facing gear blanks. Combining the teachings of Miyauch would only result in a machine with destroyed functionality that would hope to have finishing capabilities, but would never get to use them because of the destroyed functionality. Thus, a prima facie case for obviousness has not been made.

Therefore, independent claim 1 is believed to be allowable over Nejati, Arnold, and Miyauch, whether taken individually or in combination. Similarly, dependent claim 3 is believed to be allowable over Nejati, Arnold, and Miyauch, whether taken individually or in combination,

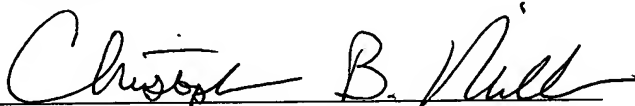
based on the allowability of its base claim and for the features and actions set forth therein.
Reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

Applicant believes the claims, as amended, are patentable over the prior art, and that this case is now in condition for allowance of all claims therein. Such action is thus respectfully requested. If the Examiner disagrees, or believes for any other reason that direct contact with Applicants' agent would advance the prosecution of the case to finality, he is invited to telephone the undersigned at the number given below.

"Recognizing that Internet communications are not secured, I hereby authorize the PTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file."

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